



GRAFTON

MASSACHUSETTS

Summary Report

Whitney Park Concept Plans

5 Mill Street

JULY 31, 2023

**CENTRAL MASSACHUSETTS REGIONAL
PLANNING COMMISSION**



Redevelopment Strategies for a Neighborhood Park

Introduction/Background

CMRPC has worked with the Town of Grafton on several projects including the Open Space and Recreation Plan (OSRP), the Local Rapid Recovery Plan (LRRP), a Complete Streets Plan, and is currently working on the Comprehensive Master Plan. The OSRP identified the need to protect open space and resources while enhancing recreational opportunities and experiences for the community. The OSRP further states that the Town should promote increased use of sites and landscapes that reflect the strong history and character of Grafton and create a sense of community that resonates with residents. Of particular importance is the development of recreational facilities that are handicap accessible and within walking distance for residents and visitors. In a 2022 meeting, the Grafton Economic Development Commission discussed the future needs of and desire for the 5 Mill Street site from an economic development standpoint. The Town has also worked with a consulting firm who identified the park site as an area of need. Several business owners and local residents reaffirmed the Town's desire to develop a stronger sense of place at this site.

The park site at 5 Mill Street is in the historic village of North Grafton, once known as New England Village that is rich in the town's early manufacturing history including that of the Wyman Gordon Company that manufactured complex forged metal components for the aerospace industry. Previously, other mills were located in North Grafton but were largely lost due to fires. Mill housing remains in North Grafton.¹ The site was donated to the Town by the Whitney family for passive recreation and is thus named Whitney Park.

CMRPC was asked to assist the Town with a site assessment and redevelopment design of this parcel for passive recreation, economic development, and to promote placemaking in an area of Town that has been underserved. Funding for this project was provided through the Commonwealth of Massachusetts' District Local Technical Assistance (DLTA).

Purpose and Project Goals

The purpose of this project was to develop conceptual site plans for redevelopment of the site into a public place that is walkable for those in the neighborhood and accessible to all. Tasks for the project included assessing the site conditions, reviewing prior planning efforts, robust community engagement efforts and development of two conceptual site designs. The project goals and desired benefit are as follows:

- Identify placemaking strategies
- Assess transportation and pedestrian safety considerations
- Identify needed transportation and other infrastructure upgrades
- Develop relevant mapping to consider site conditions and for use in design charrette/workshop
- Conceptual development of two site plan alternatives
- Solicit community input on desired park elements and uses

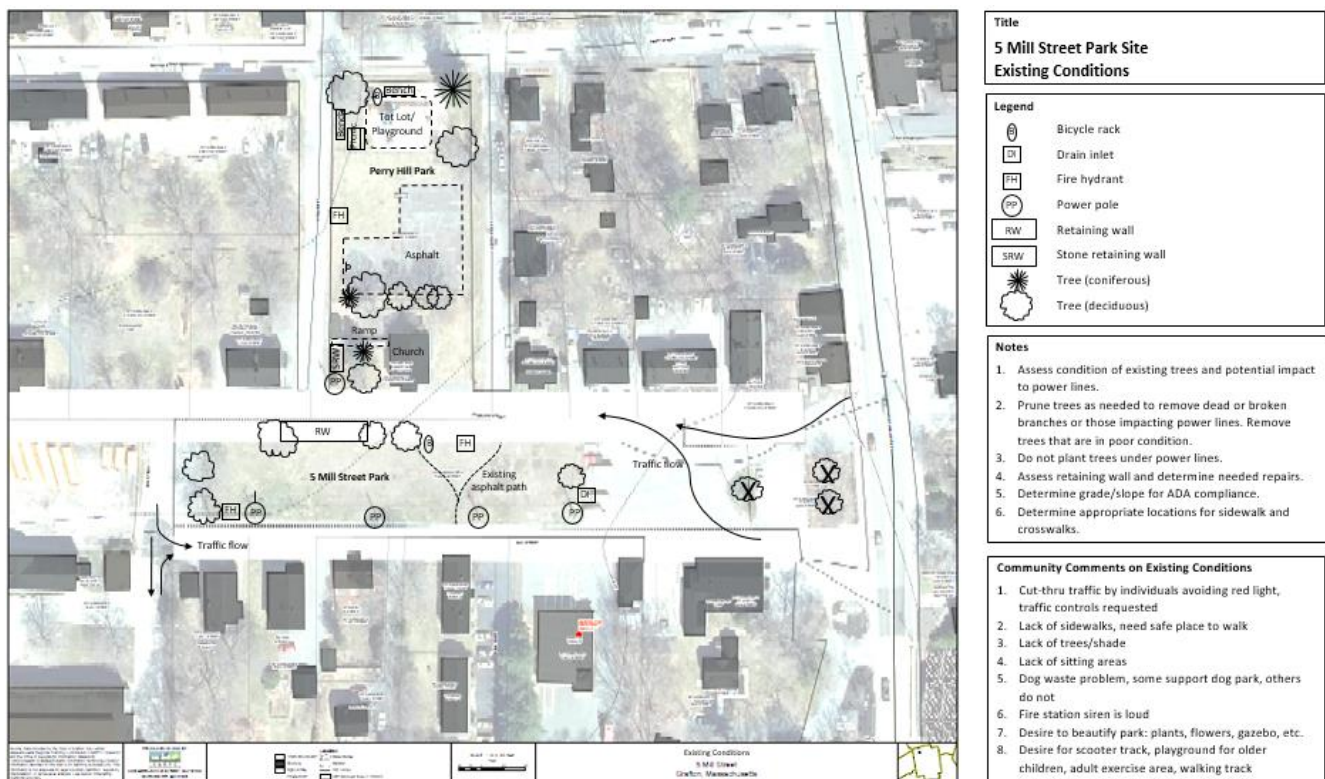
Engagement/Public Participation

A community workshop was held on April 12, 2023. The Town advertised the workshop on social media and sent direct mail information notifying area residents about the workshop. CMRPC's GIS Analyst created a base map of the site, and planners created scaled cut outs for potential site amenities. With these items, workshop attendees were able to actively participate in the park design. The workshop was mostly attended by current and past nearby residents who provided feedback on existing concerns in the neighborhood as well as suggestions for desired park improvements. The findings and initial site designs were presented and comment was accepted at the May 22, 2023 Planning Board meeting.

Process/Research/Analysis

Initial research included an analysis of existing conditions in the area of the park site. CMRPC met with the Town Planner and Economic Development Specialist to discuss the Town's vision for the site and related strengths, weaknesses, challenges, and threats. Additional input was sought from other Town departments. Planners analyzed the existing conditions, evaluated traffic patterns and parking in the area, and assessed what pedestrian safety measures could be implemented. With this information, CMRPC planners developed an existing conditions exhibit that illustrated locations of existing utilities, slopes, vegetation and traffic flow (See Exhibit I).

Exhibit I – Existing Conditions



¹ https://en.wikipedia.org/wiki/Grafton,_Massachusetts retrieved July 31, 2023

Draft Conceptual Plans

Using the base site plan developed by CMRPC, recommendations from the Town, and input from residents, planners developed two conceptual plans that take site conditions into consideration. One plan allows for a lower cost option, and the second plan expands the elements of the project for a higher cost option. What gets built will depend on the amount of funding obtained.

- Conceptual Plan A included a central planter surrounded by a paved area with benches. Plantings included ornamental shrubs, perennials, ornamental grasses, and bulbs, as well as trees to provide shade near the benches. A great lawn area was proposed west of the central planter for relaxing or community gatherings. Plan A also included a small community garden with raised beds and stone dust paths to connect the existing park area to the east of the park with the community garden and planter area.
- Conceptual Plan B expanded the improvement area to Perry Hill Park to the north and includes a pedestrian walkway to connect the two parks. Street art was also proposed as a means of slowing traffic and for aesthetics. Also recommended were improvements to the basketball court as well as installation of playground equipment for older children at Perry Hill Park. At Whitney Park, a gazebo was proposed in place of the central planter. A stone dust walking path extended along the perimeter of the park. Also proposed was a pavilion and outdoor fitness area on the west end of the park site with a great lawn in between the pavilion and gazebo.

These concept plans were presented at the Planning Board meeting on May 22, 2023. Both plans included other site amenities such as benches, trash receptacles, dog waste stations, lighting and crosswalks to the surrounding neighborhood. The Planning Board, Town Planner and others in attendance provided feedback. Additional feedback was received by email and telephone. While a community garden is a desired amenity in Grafton, the Whitney Park site has limited space for one. The Board suggested that a larger community garden would be more appropriate in another Town park. The Board also recommended that at least one structure be included in the final design for Whitney Park. Those in attendance expressed a preference for keeping Whitney Park for passive recreation, and relocating active recreation elements to Perry Hill Park. The area of the park is limited and the Board determined that additional parking should not be a part of the final design. There was discussion about funding the project and how it could be phased as funding is obtained. The Board asked for a phasing plan and cost estimate for the improvements. Alternatively, if funding can be obtained at the outset, the park site can be improved at one time. The Board also asked for information on the durability and maintenance needs of outdoor fitness equipment and street art. With the direction provided through these comments, CMRPC revised the plans.

Results/Conclusions

The revised concept plans were presented at the July 10, 2023 Planning Board meeting. The plans include many of the elements of the first drafts but eliminated the gazebo, community garden, additional parking area, and a curvilinear walking path around the edge of Whitney Park. A pavilion remains in Concept Plan B to accommodate picnics or musical groups for prospective music in the park on the great lawn. Also included in Plan B is a path to connect Perry Hill Park and Whitney Park. The land formation is sloped at the Perry Hill site. Careful design using curvilinear paths may be able to meet accessibility requirements without building ramps. Until construction

Exhibit III – Conceptual Plan B



Title		
Whitney Park, 5 Mill Street Park Site Conceptual Plan B		
Notes		
<ol style="list-style-type: none"> 1. Assess traffic and determine solutions to address concerns. 2. Use striping and signage to direct traffic flow. 3. Determine appropriate areas for safe pedestrian access. 4. Stripe crosswalks. 5. Repair retaining wall. 		
Plant List		
Qty	Name/Type	Size
	Lg Shade tree	
	Med or ornamental tree	
	Shrubs	
	Perennials	
	Ornamental grasses	
	Annuals	
	Bulbs	
	Topsoil	
	Mulch	
Materials List		
Qty	Item	Size
	Walkway materials (stone dust and edging)	
	Concrete and rebar	
	Planter materials	
	Concrete bench pads	
	Benches	
	Trash containers	
	Dog waste stations	
	Bicycle rack	
	Pavilion	
	Outdoor fitness area	
	Street/asphalt art	

Exhibit III-A



CMRPC planners reached out to equipment suppliers and researched the cost per unit for the different park plan elements in order to calculate cost estimates. The estimate for the revised Concept Plan A is \$51,448, and the estimate for the revised Concept Plan B is \$353,059. In addition, the cost to prepare construction documents for each option will add approximately 15 percent to the estimates for totals of \$59,165 to build Concept Plan A and \$406,018 for Concept Plan B. A detailed budget is included as Exhibit IV.

Exhibit IV – Phased Cost Estimate

Grafton - Whitney Park, 5 Mill Street - Phased Cost Estimate					
Phase	Item		Quantity	Price per unit	Subtotal
<i>Phase I</i> <i>Center Planter</i>	Existing path demolition	sf	500	\$3.00	\$1,500
	Repair retaining wall	ea	1	\$12,500.00	\$12,500
	Planter	ea	1	\$15,750.00	\$15,750
	Stone dust path, edging	sf	960	\$1.00	\$960
	Concrete bench pad	sf	252	\$14.00	\$3,528
	Bench	ea	6	\$950.00	\$5,700
	Trash container	ea	3	\$850.00	\$2,550
	Dog waste station	ea	3	\$480.00	\$1,440
	Bicycle rack	ea	1	\$230.00	\$230
	Trees	ea	12	\$250.00	\$3,000
	Shrubs	ea	12	\$45.00	\$540
	Perennials	ea	24	\$25.00	\$600
	Perennial grass	ea	16	\$20.00	\$320
	Bulbs (daffodils)	ea	300	\$4.00	\$1,200
	Annuals	ea	96	\$5.00	\$480
	Topsoil	cy	10	\$85.00	\$850
	Mulch		3	\$100.00	\$300
				Subtotal	\$51,448
	Construction documents	15% of subtotal			\$7717
				Total Plan A	\$59,165

Grafton - Whitney Park, 5 Mill Street - Phased Cost Estimate						
Phase	Item		Quantity	Price per unit	Subtotal	
Phase II Traffic Calming	Signage (truck route, one way, Stop, etc)		1	\$2,000.00	\$2,000.00	
	Street art		1	\$3,000.00	\$3,000.00	
	Crosswalks	lf	80	\$1.50	\$120.00	
				Subtotal	\$5,120.00	
Phase III Pavilion						
	Pavilion	ea	1	\$54,200.00	\$54,200.00	
	Site preparation		1	\$20,000.00	\$20,000.00	
	Concrete pad	sf	1020	\$14.00	\$14,280.00	
	Electric, lighting	ea	3	\$9,150.00	\$27,450.00	
			Subtotal	\$115,930.00		
Phase IV Outdoor Fitness	Fitness equipment and canopy	ea	1	\$78,721.00	\$78,721.00	
	Prepare site	ea	1	\$35,000.00	\$35,000.00	
	Safety surface	ea	1	\$31,000.00	\$31,000.00	
	Installation	ea	1	\$22,500.00	\$22,500.00	
				Subtotal	167,221.00	
Phase V Connection	Layout, grading, forms and installation	ea	1	\$8,500.00	8,500.00	
	Paving material	sf	380	\$8.00	3,040.00	
	Trees	ea	6	\$300.00	1,800.00	
				Subtotal	13,340.00	
				Total	353,059.00	
	15% of subtotal				\$52,959	
				Total Plan B	\$406,018	

Notes for Cost Estimate	
1.	Several items may be installed by town staff and be considered an in-kind match for grant funding.
2.	The estimate for annual plants is per year. Alternatively, annuals may be omitted, and design can focus on drought tolerant perennials, shrubs, and trees.
3.	Estimate for topsoil based on a depth of six inches. If a taller planter is desired, additional fill and/or topsoil will be needed.
4.	Street art cost will vary depending on the extent of street art and directional painting, whether a community volunteer group is working on street art, if an art professional is hired to design and implement, or if there is a design competition. See case studies in Asphalt Art Guide for cost for different types of projects. https://assets.bbhub.io/dotorg/sites/43/2019/10/asphalt-art-guide.pdf
5.	For detailed information on Fitlot exercise stations and Landscape Structures, see the following links: https://fitlot.org/ https://www.playlsi.com/en/commercial-playground-equipment/playground-components/healthbeat-circuit/#componentoverview
6.	Pavilion/shelter cost will vary depending on size, style, materials and manufacturer. Cost provided is a general estimate.
7.	A more detailed topographic map of Perry Hill Park will be needed to determine if the pedestrian walkway connecting Perry Hill to Whitney Park exceeds the maximum slope for an ADA accessible walkway. If ADA ramps are required, the cost for the walkway will be significantly higher.

Project Phasing

CMRPC developed a five-step phasing plan as follows:

- Phase I – Center planter at Whitney Park (Exhibit V)
- Phase II – Traffic calming (Exhibit VI)
- Phase III – Pavilion at Whitney Park (Exhibit VII)
- Phase IV – Outdoor fitness installation (Exhibit VIII)
- Phase V – Pedestrian connection between Whitney Park and Perry Hill Park (Exhibit IX)

Exhibit V – Phase I

Phase I: Center Planter

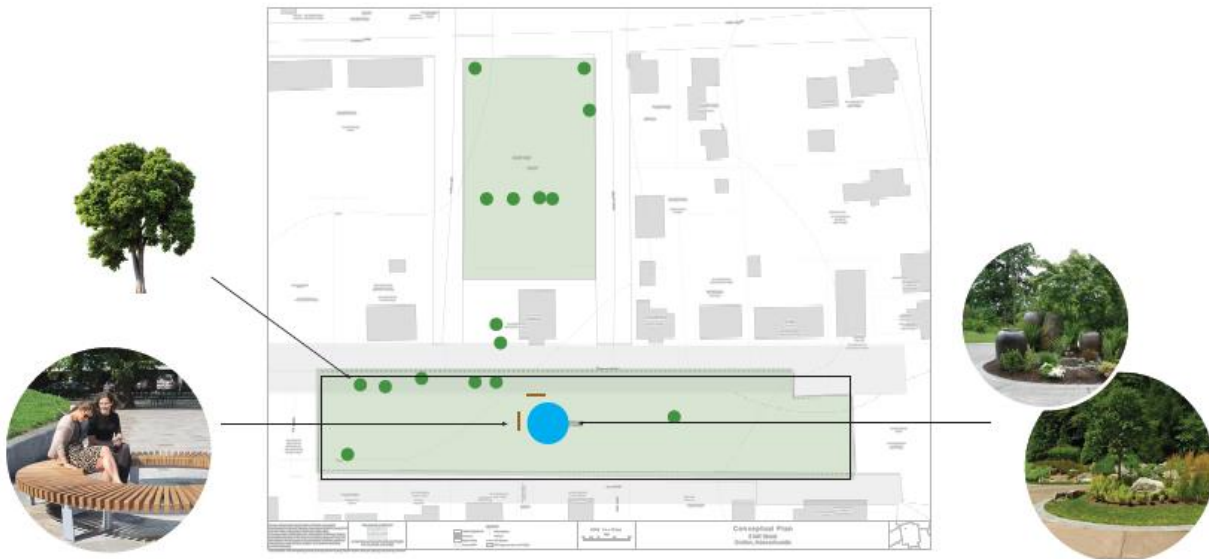


Exhibit VI – Phase II

Phase II: Traffic Calming



Exhibit VII – Phase III

Phase III: Pavilion



Exhibit VIII – Phase IV

Phase IV: Outdoor Fitness



Exhibit VIII – Phase V

Phase V*: Connection



Next Steps/Implementation

The next steps for bringing this park redevelopment project closer to implementation is to bring the project to Public Hearing and then to Town Meeting. Should the project be approved, funding will need to be identified and construction documents developed.

Funding

American Rescue Plan Act (ARPA) funds (to be spent by 2026), in the amount of fifty thousand dollars (\$50,000), have been allocated to the 5 Mill Street park project. Some additional Town funding (budgeted for active recreation) is also anticipated to be made available for implementation of the park improvements. Conceptual Plan A can be completed with the available funding. Additional elements of the park designs can be phased in should additional grant funding be obtained.

Planners met with not-for-profit organizations (including AARP.org and Fitlot.org) who work with communities on improving health and providing avenues for providing age friendly activities. Planners also met with a local supplier and installer of park equipment. These groups provided helpful information about process, costs, and funding opportunities. Additional funding can be sought through various state funding opportunities.

Traffic Calming and Pedestrian Considerations

The Grafton Highway and Police Departments should evaluate the concerns of residents in the neighborhood and determine what traffic calming measures should be implemented to reduce the amount of traffic cutting through the neighborhood to avoid the traffic signal on North Main Street at Overlook Street. Recommendations include analyzing whether any neighborhood streets should be changed to one-way traffic. Signage will be a minimal expense to implement traffic changes. Another means of traffic calming that would also provide an aesthetic element is street art. Rather than implement costly physical changes to the roadways, painting on the road surface to direct traffic or with decorative street art can slow traffic by providing the appearance of narrowed lanes.

Fire Station Siren

Residents in the area of Whitney Park expressed concern about the noise level of the Fire Station siren. The Fire Department should evaluate what other options are available other than using the siren.

Construction Documents

Construction documents will need to be developed for the project to be implemented. The estimate calculated for development of construction documents for this project is equal to 15 percent of the cost of the project. The Cost Estimate table (Exhibit IV) shows an estimate for Phase I as well as an estimate for the larger phased project for Conceptual Plan B. The cost estimate for Phase I construction documents does not apply if the entire five-phase project is being completed at one time.

Street Art

While Board members had concern about the durability of street art, it is a cost effective way to calm traffic. At a minimum, the cost for the street art would be approximately \$3,000. The cost of street art will vary depending on the extent of street art and directional painting, whether a community volunteer group is working on street art, if an art professional is hired to design and implement, or if there is a design competition. Using a professional artist or having a design competition will increase the cost estimate for street art.

Outdoor Fitness Area

Based on feedback from the Town, Conceptual Plan B shows the outdoor fitness area relocated to Perry Hill Park as Whitney Park will focus on passive recreation. CMRPC planners met with a park project manager for the City of Worcester and a park supplier and installer. The quality of equipment used for outdoor fitness equipment is the same level of quality for other park equipment. It is made to be durable and to withstand harsh winter temperatures. The park project manager has more concern about vandalism or the potential for adjustable parts to break. The project manager noted that movable parts are fine but warned against using adjustable equipment.

Planting Recommendations

The proposed concept plans include a variety of plants including shade trees, ornamental trees, shrubs, perennials, bulbs and annuals. No plantings are recommended along the south boundary of Whitney Park due to overhead power lines. Bulbs such as daffodils can provide a beautiful springtime bloom and are mostly maintenance free. Annuals can provide summer color but will need to be replanted each year if selected in the final plan. CMRPC recommends that Grafton focus on drought resistant shrubs, perennials and grasses that will need very little watering once established.